element-substance consisting of only one species of atom, so that it cannot be decomposed by chemical means

embryo-organism in the early stages of its development

endocrine organ-gland that secrets hormones into the blood

energy-physical quantity having the dimension of work and measured in joules, whose total quantity remains constant through all interactions and transformations

enzyme-substance, usually a protein, produced by living cells and acting as a catalyst

epicenter-point on earth's surface directly above the geological shift that causes an earthquake

testis- an organ that produces sperm

thermometer- a device for measuring temperature

toxin- a poisonous substance produced by bacteria

ultraviolet radiation- electromagnetic waves with wavelength shorter than visible light and longer than X-rays

umbilical cord- the organ of a mammalian embryo that connects the embryo to the placenta

**nucleus-**1) The massive, charged center of an atom, composed of protons and neutrons. 2) a structure in a cell, surrounded by a membrane and containing the chromosomes.  3) a particle of dust in the atmosphere around which water condenses, forming a raindrop

**organic compound-**a molecular chemical compound based on carbon

**osmosis-** the diffusion of water through a membrane

**outcrop-** a part of the bedrock protruding through overly sediments

**ovary-** 1) in animals, an organ that produces egg cells 2) the part of the stigma of a flower that contains the ovules

starch- the complex that is the main form of energy storage in plants

symbiosis- the condition in which two organism live intimately together for mutual benefit

temperature- the average random kinetic energy of the molecules of a substance, which determines whether it will gain or lose heat to other objects

compound- a substance of definite chemical composition, consisting either of postive and negatvie ions in definite ratios or of molecules composed of definite kinds and numbers of atoms.

Concentration- the amound of a substance contained in a given volume of a solution of other mixture.

Conductor- a material through which heat or electric current may pass.

convection- the distribution of heat due to the rising of warmer fluids over colder ones.

digestion - the process of enzymatic breakdown of large organic molecules into smaller, soluble ones

dilute soltue - a solution in which the solute has a low concentration

DNA - deoxyribose nucleic acid, the substance of the genes

ductless gland - an endocrine organ

ecology - the study of the relationships between organisms and with their inorganic enviornment

Amino acid- organic chemicals with an acid group (-COOH) at one end and an amino group (-NH2) at the other; the constituent molecules of proteins

Anemia- substandard concentration of red blood cells

Antibody- a blood protein that protects the body from foreign chemicals or microorganisms

Aorta- the largest artery, carrying blood out of the left ventricle

Artery- a muscular-walled blood vessel that distributes blood to the body tissues

Atmosphere- the layer of air surrounding the earth

Atom- the smallest part of an element

Bacteria- the smallest and simplest one-celled organisms, having neither nucleus nor other organelles

Electric charge – the property of particles (such as electrons and protons) by which they exert forces on each other without respect to their mass

Electric current – a flow of electric charge, typically carried by electrons through a metal or by ions through a solution or a plasma

Electromagnetic waves – disturbances in electric and magnetic fields propagating through space, including light, infrared and ultraviolet radiation, radio waves, X-rays, etc.

Electron – a particle found in all atoms having a small mass and a single unit of negative electric charge

Electrostatic force – the force articles exert on each other because of their electric charge

Kelvin scale- the SI temperature scale, which has its zero at the absolute zero of temperature  
kinetic energy- the energy of an object as measured by its mass and velocity   
latent heat- the heat added or removed from a substance that produces a change of phase with no change in temperature  
latitude- the distance north or south of the equator, measured in degrees  
light year- the distance light travels in a year  
liquid- a substance that takes the shape of its container, up to a definite upper surface   
liter- a unit of volume equal to 1000 cubic centimeters  
fermentation- an enzyme-controlled reaction that takes place in the absence of oxygen, such as the conversion of sugar to alcohol by the action of yeast  
fertilization- 1. the process of applying nutrients to the soil to stimulate plant growth 2. the union of a sperm and an egg cell to form a zygote  
fission- 1. reproduction of a one-celled organism by splitting into two equal parts, with the release of energy   
flood plain- the flat region around an old river, which becomes covered with water at times of high runoff

barometer- an instrument for measuring atmospheric pressure

bedrock- the solid rock underlying the loose material at the earth's surface

boiling point- the temperature at which, at any given pressure, the liquid and gas phases of a substance are in equilibrium

calorie- a quantity of heat energy, equal to 4.185 joules. The large Calorie of the nutritionist is a kilcalorie, equal to 1000 calories

capillary1. a thin tube into which water can rise by adhesion to the surface. 1. a tiny blood vessel connecting an artery to a vein and providing interchanging of materials between blood and tissue.

absolute zero- the lowest possible temperature, about -273 degrees C.

acid- a substance that forms hydronium ions (H3O+) in water; having a pH less than 7.

acid rain- rain made acid by absorbing sulfur and nitrogen oxides from polluted air.

adrenalin- a hormone of the adrenal gland, secreted in times of emergency

air mass- a largge body of air characterized by certain values of temperature and humidity

algae- simple, green organizms with cell walls, but without the complex structure of plants

alkali- a strongly basic hydroxide

alloy- a substance composed of two or more metals

alternating current- an electric current that reverses direction periodically

muscle- an organ tha tproduces motion of body parts or change in shape of organs by contracting.

natural selection - the tendency of individuals or species best adapted to a particular enviornment to leave larger numbers of offspring.

nerve- an organ that controls body functions by carrying electrochemical impulses.

nueron- a nerve cell

neutron- a neutral particle that is part of the nuclei of atoms, with mass slightly larger than that of a proton.  
nitrogen- a gaseous element, atomic number 7, that makes up 79 percent of atmposphere and is an important constitutent of many organic compounds.

melting - the change of matter from solid to liquid  
melting point - the temperature at which the solid and liquid phases of a substance can exist in equilibrium.  
menstruation - the monthly process by which the lining of the uterus sloughs off, accompanied by bleeding through the vagina  
mineral - an earth substance with specified chemical constitution.   
molecule - a particle consisting of one or more atoms bound together, and comprising the smallest quantity of a non-ionic substance.

uterus-the organ of female mammals in which the embryo grows  
vaccine-a material used to induce immunity to a specific disease  
vapor-the gaseous phase of a substance that exists as a liquid under ordinary conditions  
vein- 1. a thin-walled, valved blood vessel carrying blood toward the heart. 2. the branching support structures of the leaf of a plant

Gamete-a sex cell, such as egg or sperm.

Gas-a substance, usually of very low density, that has no surfaces of its own but will spread to fill its container.

Gene-the particle that carries hereditary information from one generation to another and controls the production of proteins in a living cell.

Genetics-the study of biological inheritance.

Glacier-a large mass of ice moving down a valley or across a continent.

Glucose-the simple sugar (C6H12O6) the forms the fundamental energy supply of all the nucleated orgsnisms.

Gravity-the mass-dependent force by which any two objects in the universe attract each other.

Pressure- f orce  per unit of area

Prime meridian-  the arbitrary zero of longitude passing through Greenwhich, England.

Protein-  one of the characteristics substances of living things whose molecules are composed of many amino acids.

Proton-  the massive particles having a single unit of positive charge, that compse the charged part of a nucleus

Radioactivity- the spontaneous breakdown of unstable atomic nuclei , with the release of energetic rays and particles.

Vertebrae- the bones that are arrayed linearly to form the back bone of vertebrates.

Virus- a submicroscopic particle that can become self reproducing inside a living cell

Volt- the unit of measure of electric potential difference, which provides the condition for the flow of an electric current

Weight- the gravitational force that the earth or other astronomical object exerts on an object near its surface

X ray- electromagnetic radiation of wavelength shorter than ultraviolet

Zygote- a cell formed by the fusion of two gametes.

Crystal: a solid having plane faces because its molecules or ions are arranged in linear arrays

Density: the amount of mass (or other property) per unit volume of a substance

Diaphragm: 1. The vibrating element of a microphone of a loudspeaker

                  2. The transverse muscle layer that separates the abdomen from the chest cavity in mammals

                  3. a contraceptive device that functions by covering the entrance to the uterus

Diffusion:  1. The spontaneous spreading of a liquid or gas overdue to the intrinsic motion of its molecules

               2. the scattering of light, as by reflection from a rough surface

humidity- the amount of water vapor in the air  
igneous rock- rock formed by the hardening of liquid rock emerging from deep within the earth, either to the surface or within the crust  
inertia- the property of objects to remain in a state of rest or uniform motion in a straight line unless acted on by an outside force.  
infrared rays- electromagnetic waves of wavelength longer than those of visible light, but shorter than microwaves  
insulator- a substance that blocks the passage of heat or electric current.

reflex-a simple, automatic response to a stimulus  
  
relative humidity-the amount of water vapor in the atmosphere, expressed as a percent of the maximum value at a given temperature  
  
respiration-1. the passage of air in and out of the lungs, 2. the process by which oxygen passes through membranes into the blood, as lungs, gills, or wet skins, 3. the process by which cells derive energy from the oxidation of glucose  
  
sedimentary rock-rock formed by the consolidation of sediments such as sand or mud, or by precipitation from solution

erosion- the movement of rock, sand, etc, due to matural forces

esophagus- the tube that carries food from the mouth to the stomach; gullet

evaporation- conversion of a liquid into the gaseous phase by escape of molecules from the surface

evolution- the process by which species undergo drastic changes over lng periods of time

excretion- the disposal of metabolic wastes from the body, as by urination

fault- a crack in the earth's crust, along which crustal movement takes place

food chain- an array of organisms in which each serves as food for the one above

fossil- the preserved remains of a long-extinct organism

frequency- the number of cycles completed in a unit time in any cyclic phenomenon such as a vibration

front- the boundary between two air masses

fusion- 1. the melting of a solid 2. a nuclear reaction in which two small nuclei combine to form a larger one, accompanied by the release of energy 3. the union of isogametes of one-celled organisms.

galaxy- an agglomeration of many millions of stars

seismograph- an instrument for studying earthquakes by analyzing the waves they produce in the earth's crust.  
semen- the body secretion that carries sperm out  
solar eclipse- condition in which the moon comes between the earth and the sun, blocking out the sun  
sound wave- a disturbance in air or other substance that is propagated as a vibration  
sperm- a male gamete, typically self-propelled  
spinal cord- the mass of nerve tissue in the vertebrates that runs from the brain through the bones of the spinal column

Plasma- 1. the liquid part of the blood 2. a highly ionized gas  
Pollution-the accumulation of unsightly, unhealthy, and other  
desirable materials in the environment  
Potential difference-in an electric field, the change in potential  
energy of an electric charge moving from one position to another  
Precipitation- 1. the condensation of atmospheric water into rain,  
snow, sleet, etc. 2. the process by which a substance in solution  
solidifies

longitude- the distance east or west of the prime meridian, measured in degrees

lunar eclipse- condition in which the earth comes between the sun and the moon so that the moon is in the earth's shadow

magnet- a device made of a ferromagnetic material, such as steel, which can exert forces on other such materials

magnetism- the excess force (above the electrostatic force) exerted on each other by charges in motion

mass- the quantity of substance in an object, measured either by its acceleration when a force is applied or by its gravitational attraction to other objects

chemical symbol- the one or two letter code for an element

chlorphyll- the green substance in the cells of plants and algae that catalyzes photosynthesis

chromosomes- the thread like structures in nuclei (and in basteria) that carry the genes

circuit- a set of electric conductors, connected in such a way as to form a complete path between the poles of the source of electric energy

colon- the large intestine

combustion- a chemical process, usually an oidation, that produces heat and light

insulin- a hormone, produced in the pancreas, that controls the metabolism of glucose

ion- An atom or group of atoms that has acquired either a positive charge by losing one or more electrons, or a negative charge by gaining electrons

Isobar- A line on a weather map connecting points of equal barometric pressure

Isotope- A variety of an element distinguished by its atomic mass number, but having the sam atomic number as all other isotopes of the element

Jet stream-  A rapidly flowing mass of air high in the atmosphere

Muscle

an organ that procudes motion of body parts or change in shape or organs by contracting

natural selection

the tendency of individuals or species best adapted to a particular environment to leave larger numbers of offspring

nerve

an organ that controls body functions by carrying electrochemical impulses

neuron

   a nerve cell

neutron

 a neutron particle that is part of the buclei of atoms, with mass slightly larger than that of a proton

nitrogen

    a gaseous element, atomic number 7, that makes up 79 percent of the atmosphere and is an important constituent of many organic compounds

Greenhouse effect-the warming of the earth resulting from atmospheric gases heat that reradiates from the earth's surface

Habitat-the part of an ecosystem that is occupied by a given organism

Heat-energy that passes from one system to another because of a difference in temperature

Helix-a spiral shaped like a spring, characteristic of the DNA molecule

Herbivore-an animal that eats plants only

Hormone-a substance secreted into the blood by an endocrine gland that controls chemical processes in other parts of the body

carbohydrate- a subtance such as sugar and starch, whose molecules are composed of atoms of carbon, hydrogen, and oxygen with two parts of hydrogen to one oxygen

Catalyst- a substance that increases the rate of a chemical reaction without being used up in a reaction

chemical formula- conventional representation of the atomic composition of a compound

chemical reaction- a process in which the molecular or ionic composition of one or more substance is altered

parasite- an organism that is noursihed by invading or attaching itself to and feeding on another organism.

pH-  a method of expressing the acidity or alkalinity of a solution, based on concentration of hydrogen ions.

photosynthesis- the process by which green plants and algae, in the presences of sunlight, convert carbon dioxide,  and water into glucose, giving off oxygen as a waste.

placenta-  the organ of a mammalian embryo (and a few other kinds of embryos) by which the embryo is attached to the uterus